



**RETAINED WATER,
PACKING ROOM PROCEDURES,
AND LABELING**

MODULE 9 – 703C/X, 904C/X
RETAINED WATER, PACKING ROOM PROCEDURES, AND LABELING
JANUARY 2002

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OBJECTIVES

After completing this module, the trainee will be able to:

1. List 2 things the retained water regulation requires of plant management.
2. Define naturally occurring moisture.
3. List the evisceration processes that are not subject to the retained water regulations.
4. List the post-evisceration processes that are not subject to the retained water requirements.
5. State the maximum product temperature requirements for holding chilled poultry.
6. List the maximum time and temperature requirements for chilling giblets when chilled separately from the carcass.
7. List 3 requirements for ice and water chilling.
8. List the time and temperature requirement for freezing ready-to-cook poultry.
9. Identify seven requirements for an immediate container label.
10. Identify two requirements for a shipping label.
11. Identify the organs considered to be giblets.
12. Identify two situations in which the plant is allowed to divide giblets packed with individual bird carcasses.

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RETAINED WATER

The Food Safety and Inspection Service passed the Retained Water and Chilling Final Rule (regulation) in January 2001. The rule is currently scheduled for implementation on January 9, 2003. The regulation states that raw, single ingredient meat and poultry carcasses and parts will not be permitted to retain water resulting from post-evisceration processing unless the establishment demonstrates that any water retained in the carcasses and parts is an inevitable consequence of the process used to meet applicable food safety requirements. Plant management will be required to provide data collected in accordance with a written protocol to show how much water is an inevitable consequence of processing.

Additionally, the establishment will be required to disclose on the label the maximum percentage of retained water in the raw product. Establishments having data or information to demonstrate that their products do not contain retained water will not be required to label the products and could include a no-retained-water statement on the label.

FSIS revised the poultry chilling regulations to:

- ? make them more consistent with the Pathogen Reduction/Hazard Analysis and Critical Control Point regulations
- ? eliminate “command-and-control” features
- ? reflect current technological capabilities and good manufacturing practices

Some evisceration processes are not subject to the retained water regulations. These include:

- ? flushing the gizzard with water and washing to remove digestive tract contents
- ? washing excess blood from the hearts and livers with water

Post-evisceration processes that are not subject to the retained water requirements include:

- ? washing with hot water, cold water, or an antimicrobial, including on-line reprocessing systems
- ? postchill spraying of carcasses or parts with water or an antimicrobial solution
- ? water or ice chilling of carcasses or giblets with or without an antimicrobial
- ? thawing of poultry or giblets in water

Pre-Implementation

The pre-implementation period began when the final rule was published on January 9, 2001, and will end when the rule becomes effective, January 9, 2003.

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During the pre-implementation period FSIS personnel will terminate any activities they have performed to verify that establishments are meeting regulatory requirements that were removed from the regulations. For example, FSIS will not enforce:

- ? requirements prescribing how to thaw frozen poultry and drain ready-to-cook poultry
- ? requirements on how establishments chill parts of carcasses
- ? requirements relating to harvesting detached ova
- ? the requirement that establishments must file a description of the chilling and freezing procedures with the Inspector-in-Charge (IIC)
- ? prescriptive requirements for water reconditioning systems for poultry chillers
- ? requirements that the establishment submit written notice of adjustments to washing, chilling, and draining methods before any changes are made and provide FSIS with data showing that the adjustments are effective in meeting water limits

If NR's were written since January 9, 2001, based on these requirements that are no longer part of the regulations, the NR's should be withdrawn and the records corrected.

If an establishment has included one of these deleted regulatory requirements as part of its SSOP or HACCP system it must continue to verify those items. Unless the establishment performs a SSOP re-evaluation or a HACCP reassessment that changes the features of its system, it must continue to verify.

During the pre-implementation period establishments need data to support their label declarations. Collection and analysis of relevant data is an activity that establishments may perform during the pre-implementation period. This set of activities, called pre-implementation experimentation, include submitting a protocol to FSIS for review by the Technology Program Development Staff in Washington, D.C.

Written protocols will be received by FSIS and the agency will either object or not object to the establishment's plan. The pre-implementation experimentation period for a plant begins when the establishment receives a message that FSIS does not object to the protocol. The IIC will also be notified. He or she will then observe establishment data collection and analysis described in the protocol.

Pre-implementation experimentation should not begin if an establishment has one or two consecutive *Salmonella* verification set failures.

Pre-implementation experimentation should be concluded when an establishment begins labeling its products in conformity with the regulatory requirements of this final rule. This will be no later than January 9, 2003.

Data Collection

Data collection during this period should provide information on 2 items:

1. The establishment will determine the naturally occurring moisture (water) in the poultry, at a minimum on a whole-bird basis. Naturally occurring moisture is the amount in a bird that has not been eviscerated.
2. The establishment will determine the minimum amount of retained water in its single ingredient poultry leaving the establishment. The amount of water must be only that which is necessary to meet applicable food safety requirements.

Naturally occurring moisture should be measured after evisceration and before any processes that could add water have been applied to the carcasses. The establishment may have more than one level of naturally occurring water if necessary to account for seasonal variability.

FSIS Responsibilities During Pre-Implementation

The IIC will review and analyze data and observe the processes carried out by the plant during pre-implementation experiments. The IIC will use a checklist designed to verify that the protocols are being followed.

On rare occasions during pre-implementation FSIS might choose to take one or more product samples for laboratory analysis. The purpose of the sampling would be to practice sample preparation. The sample is taken where naturally occurring water is measured. Any such sampling will be directed, and in-plant personnel will receive appropriate instructions.

The sampling procedure for retained water determination is as follows:

1. Take a randomly selected sample from a whole-carcass bird. The sample will include a complete thigh, including the bone, muscle, and skin, with associated fat.
2. After removal from the carcass, immediately place the sample in an impermeable container and seal the container to prevent the loss of any water.
3. Keep the sample under refrigeration until it is shipped.
4. Complete the FSIS form submitted with the FSIS-generated request for sampling.
5. It is recommended that samples not be shipped over a weekend.

FSIS will share laboratory results with the establishment.

FSIS Verification After January 2003

FSIS intends to conduct marketplace sampling as a major means of verifying compliance with the retained water requirements. At regular intervals FSIS will sample labeled products that have been produced in establishments. The samples will be sent for laboratory analysis to determine whether they are misbranded. Inspection program personnel, including compliance officers, will receive specific sampling instructions.

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The standard against which retained moisture in a given product will be judged will be computed by adding the establishment baseline level of naturally occurring water (unless a national baseline established by FSIS is in effect) to the labeled level of retained water. A factor to account for reasonable variability will be considered. Current thinking is to allow a 20% variation from the stated maximum retained moisture on any single market sample. When an FSIS sample result exceeds the maximum retained moisture stated on the product label by more than 20%, the plant will be notified by FSIS.

If a sample is out of compliance, FSIS will seek additional data from various sources, including in-plant personnel, establishment records, the establishment's analysis in support of the label declaration, and product samples, to determine the course of action.

If FSIS determines, through analysis of data, that the establishment might be systematically adulterating and misbranding their products, inspection program personnel may submit their analytic information through supervisory channels. FSIS can then determine that special sampling is desirable.

CHILLING REQUIREMENTS

Temperatures and procedures that are necessary for chilling ready-to-cook poultry and all edible portions, must ensure the prompt removal of the animal heat, preserve the condition and wholesomeness of the poultry, and assure that the products are not adulterated.

Ice and water chilling:

- ? Only ice produced from potable water may be used for ice and water chilling. The ice must be handled and stored in a sanitary manner.
- ? Poultry chilling equipment must be operated in a manner that meets pathogen reduction performance standards for raw poultry products and the provisions of the establishment's HACCP plan.
- ? Major portions of poultry carcasses may be chilled in water and ice. Major portions of eviscerated poultry carcasses are either carcasses from which parts may be missing, or the front or rear portions of transversely-split carcasses.

The maximum product temperature requirement for holding chilled poultry is 40° F. Previously chilled poultry carcasses and major portions must be maintained constantly at 40° F. There are two exceptions:

- ? During packaging and further processing, the temperature may rise to 55° F. provided it is promptly rechilled to 40° F. internal temperature. *(This requirement will not be enforced during retained the moisture pre-implementation phase that ends on January 9, 2003.)*

- ? Poultry in packaged form that is held for more than 24 hours must be held in a room where the ambient temperature $\leq 36^{\circ}\text{F}$.

The requirements for chilling giblets depend upon the method used. If the giblets are chilled separately from the carcass, then they must be chilled to 40°F . or less within 2 hours from the time of harvest. If the giblets are chilled with the carcass, then they must meet the chilling requirements for the carcass.

THAWING REQUIREMENTS

When thawing frozen ready-to-cook poultry in water, the establishment must use methods that prevent adulteration of, or net weight gain by, the poultry.

FREEZING REQUIREMENTS

For a number of years the poultry industry has used freezing as a method to lengthen the distribution life of their products. FSIS has several minimum requirements for freezing which the establishment must meet. For example, once ready-to-cook poultry (previously chilled to 40°F .) is placed into the freezer, the internal temperature of that poultry must reach 0°F . within 72 hours. If poultry is labeled “fresh frozen,” “quick frozen,” “flash frozen,” or any other term that implies the poultry underwent a rapid change from fresh to frozen, the poultry must be placed into the freezer within 48 hours after initial chilling.

STORING FROZEN PRODUCT

The requirements for storage of frozen poultry require that it be maintained in a solid frozen state at room temperature that remains as constant as possible, using good commercial practices. The regulations require that procedures used to process, store, or otherwise handle any poultry product shall be strictly in accordance with clean and sanitary practices and shall result in poultry products that are not adulterated [§381.65(a)]. Furthermore, it states that “containers to be used for packaging other poultry products shall be clean, free from substances and odors that would result in adulteration of the products, and of sufficient strength and durability to protect the products during normal distribution” [§381.65(n)].

Product wholesomeness must be maintained during the storage of frozen poultry. Poultry, though frozen, can be adulterated if good commercial practices are not followed.

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Some signs of improper work habits and inadequate containers that might allow adulteration are:

1. Broken packages that do not protect the wholesome product from adulteration.
2. Poultry on the floor exposed to adulteration and abuse.
3. Containers showing signs of employee abuse or mishandling.

PACK-OUT DUTY

When the day's evisceration operation has been completed, it is usually necessary to assign an inspector to "pack-out" duty. In some plants a USDA grader will supervise this operation. If so, double coverage is not necessary. The duty may be rotated among GS-7 inspectors and is sometimes performed on overtime.

The duties of a pack-out inspector are generally supervising regulatory requirements for product, either during or after chilling. Some of these requirements involve the following:

- ? Labeling checks
- ? Net weight tests
- ? Cut-up inspection
- ? RTC inspection
- ? Finished product standards tests
- ? Condemned product disposal
- ? Operational sanitation

LABELING

The public expects products labeled with the mark of inspection to be wholesome, free of adulteration, and truthfully labeled.

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The poultry **inspection legend** shows that the product has been inspected for wholesomeness. Product carrying this legend was wholesome at the time of inspection.



The **shipping container** encloses fully labeled immediate containers. The container is used to bulk-pack smaller immediate containers such as tray packs.

The shipping container label must contain two features.

- ? the inspection legend
- ? the establishment or plant number

The **immediate container** encloses the product and comes in direct contact with the product. There are large immediate containers, like an ice-pack box; and there are small immediate containers, like the consumer-sized tray packs.

The features listed and described below must appear on the immediate container label.

- ? The **common or usual name** of the product tells the consumer what the contents of the package are.
- ? The **official inspection legend** indicates the product was inspected and found wholesome.
- ? The **official plant number** can be used to identify the origin of the product. The number may be in the circle of the inspection legend, outside the circle adjacent to the legend, or elsewhere, such as embossed on a closure clip.
- ? A **net weight statement** (or a statement that satisfies this requirement)
- ? The **name and address** of the packer or distributor of the product. This must

include the zip code.

- ? An **ingredients statement** if the product is made from two or more ingredients
- ? A **special handling statement** if the product is perishable. CO₂ and ice pack poultry that is intended for further processing is exempt from this provision.

Giblets are properly prepared hearts, livers, and gizzards from a wholesome carcass. The neck is not a giblet even though, in many instances, it is included in the giblet pack.

Dividing giblets packed with individual bird carcasses is permitted; however, each carcass should contain a whole or part of a liver, heart, and gizzard. In each case of division, the giblet part shall not be less than one-half of the unit item (heart, liver, or gizzard). Division is allowed when giblets have been excessively condemned due to disease or when giblets are lost due to machinery failures. Division of giblets is not permitted where the shortage of giblets is a result of packing them separately from the carcasses to sell as a separate entity.

Labeling Water Content

The Retained Water and Chilling Final Rule applies to raw, single-ingredient, whole, ground, or cut-up products that retain water used in post-evisceration processes. It does not change existing labeling requirements or policies. However, the rule does require labeling declaring any water retained by carcasses and parts of carcasses resulting from post-evisceration processing. Any water retained over naturally occurring moisture must be reflected in a prominent statement on the principal display panel of the product label. For example:

- ? Up to X% retained water
- ? Contains X% retained water

The establishment must comply with these labeling requirements at the end of the pre-implementation period.

Most labels for these products can be generically approved because the retained water statement is not considered to be a claim.

Retained water in single-ingredient raw product has no effect on standards of identity, composition, or labeling of multi-ingredient product. For example, a multi-ingredient sausage containing meat or poultry with retained water does not need to reflect the retained water on the label because the sausage is not a single ingredient product.

Retained water in raw, single-ingredient products may have an effect on standards of identity, composition, or labeling when such product is used to produce another raw,

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single-ingredient product. For example, when poultry that contains 5% retained moisture is used to make ground chicken, the resulting product must be labeled to declare any retained water above naturally occurring water.

If poultry with retained water is shipped for further processing it must bear a statement declaring the retained water.

Products with different retained water levels can bear the same retained water labeling statement in some cases. The retained water statement can reflect the maximum percentage retained water of any of the products. For example, two products with different retained water levels, prepared by two different establishments owned by the same company, may be labeled “less than X% retained water” or “contains up to X% retained water.” Also, a package of mixed parts, each with different water retention levels, may bear such a statement, or the parts may be listed with separate retained water statements.

SUPPLEMENT

Using the module answer the following questions.

1. List 2 things the retained water regulation requires of plant management.

2. Define naturally occurring moisture.

3. List the evisceration processes that are not subject to the retained water regulations.

4. List the post-evisceration processes that are not subject to the retained water.

5. Give two requirements for storage of frozen poultry.

6. At what temperature must chilled poultry be held?

7. List the maximum time and temperature requirements for chilling giblets when chilled separately from the carcass.

8. List five pack-out duties of FSIS personnel.
9. What are the mandatory labeling requirements for immediate containers?
10. What are the mandatory labeling requirements for shipping containers?
11. List the organs considered to be giblets.
12. When must the establishment begin labeling raw, single ingredient poultry with a retained water statement?